

November 2022 Report (data through September 2022)



# **Executive Summary**

### Construction Packages (CP) Design-Build Expenditures (Page 5)

- September 2022 Expenditures totaled \$50.9M:
  - Construction Package 1 (Page 14) Expenditures totaled \$15.1M.
  - Construction Package 2-3 (Page 23) Expenditures totaled \$26.5M.
  - Construction Package 4 (Page 34) Expenditures totaled \$9.2M.
- Total CP Cumulative Actual Expenditures (Pages 13, 22, and 31) \$4,151.9M.
- Total Cumulative Current Contract Amount (Pages 13, 22, and 31) \$6,054.2M.

### **Change Orders**

- Executed Change Orders this period 31 for a total of \$118.0M:
  - Construction Package 1 (Page 15) 17 for a total of \$109.4M.
  - Construction Package 2-3 (Page 24) Nine for a total of \$2.8M.
  - Construction Package 4 (Page 35) Five for a total of \$5.8M.

### Risk Contingency (Page 6)

- Approved Contingency \$4,000.7M budgeted contract contingency. Contingency balance is \$977.4M as of September 30, 2022.
  - Construction Package 1 (Page 16) \$1,944.5M budgeted contract contingency. Contingency balance is \$436.5M as of September 30, 2022.
  - Construction Package 2-3 (Page 25) \$1,638.4M budgeted contract contingency. Contingency balance is \$444.4M as of September 30, 2022.
  - Construction Package 4 (Page 36) \$417.8M budgeted contract contingency. Contingency balance is \$96.5M as of September 30, 2022.

## **CP Design (Structures/Guideway)**

- CP major design Ready for Construction (RFC). Milestone of 100% of the required 163 RFC design approvals agreed with the Authority in June 2022 for Construction.
  - Construction Package 1 40 of 40 total design packages approved by the Authority for construction.
  - Construction Package 2-3 109 of 109 total design packages approved by the Authority for construction.
  - Construction Package 4 14 of 14 total design packages approved by the Authority for construction.

## **CP Construction Labor (Page 7)**

- September 2022, Average Daily Site Workers (by Week) 1,294 workers. An increase of 106 workers from the previous period (from 1,188):
  - Construction Package 1 (Page 17) 245 workers. A decrease of 12 workers from the previous month (257).
  - Construction Package 2-3 (Page 26) 752 workers. An increase of 92 workers from the previous month (660).
  - Construction Package 4 (Page 37) 297 workers. An increase of 26 workers from the previous month (271).
- Contractors continued with construction while following safety protocols and guidelines from the Centers for Disease Control and Prevention (CDC) and Occupational Safety and Health Administration (OSHA).



### **CP Construction Progress (Page 8)**

- Structures 68 underway/construction complete compared to 93 structures (73%) total. No change from the previous period:
  - Construction Package 1 26 structures underway/construction complete.
  - Construction Package 2-3 31 structures underway/construction complete.
  - Construction Package 4 11 structures underway/construction complete.
- Guideway 87 miles underway/construction complete compared to 119 miles (73%) total. No change from the previous period:
  - Construction Package 1 17 miles underway/construction complete.
  - Construction Package 2-3 48 miles underway/construction complete.
  - Construction Package 4 22 miles underway/construction complete.

### **Utility Relocations Status (Page 9)**

- Relocated: 895 (48%); In Progress: 393 (21%); Approved to Start: 60 (3%); Not Started: 504 (27%); Total: 1,852. A total of 15 relocated in the September 2022 reporting period. A sequence of activities must be completed to begin utility relocation work. These activities include environmental clearance, executed third-party agreement(s), design approval, construction work plans, pre-construction walkthroughs, acquisition of real property, and/or land right conveyances:
  - Construction Package 1 Relocated: 384 (39%); In Progress: 343 (35%); Approved to Start: 0 (0%); Not Started: 265 (27%); Total: 992.
  - Construction Package 2-3 Relocated: 417 (59%); In Progress: 37 (5%); Approved to Start: 29 (4%); Not Started: 222 (32%); Total: 705.
  - Construction Package 4 Relocated: 94 (61%); In Progress: 13 (8%); Approved to Start: 31 (20%); Not Started: 17 (11%); Total: 155.

### CP Real Property/Right-of-Way (ROW) (Pages 10 - 12)

- Total Parcels Delivered to Date 2,141 parcels compared to an estimated 2,301 parcels needed.
- Parcels Delivered to Design-Builder (DB) 16 parcels in September 2022.
- Construction Packages 1-4 One parcel added to meet Third Party design requirements, 20 parcels associated with SR 46 and Gromer Transmission line removed, and one parcel removed due to design refinement reducing impacts to real property. The Authority continues to receive requests for additional parcels primarily related to third-party requirements. The Authority reviews these as received and if merit is found, those parcels will be added and acquired per contractual terms.
- Railroad Parcels Delivered to Design-Builder Zero parcels.
- Total Railroad Parcels Delivered to Date 136 parcels delivered compared to an estimated 170 total railroad parcels needed.
- Land Right Conveyances (Tier 1, Prior to Construction):
  - Zero land right conveyance approved.
  - To date, the Authority received approval on 671 land right conveyances.



### Project Development (Environmental Clearance) Schedule – Notice of Determination (NOD)/Record of Decision (ROD) (Pages 42 - 43)

- San Francisco to San Jose The National Environmental Policy Act (NEPA) waiting period for the Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) ended July 11, 2022. The Federal Railroad Administration (FRA) published the final General Conformity Determination on July 22, 2022 and noticed in the Federal Register on July 28, 2022. The High-Speed Rail (HSR) Authority Board approved the San Francisco to San Jose (FJ) Final EIR/EIS at the August 2022 Board Meeting. **Update**: The HSR Authority's Chief Executive Officer (CEO) signed the NEPA Record of Decision (ROD) on October 14, 2022.
- San Jose to Merced Final Record of Decision (ROD) was signed by the Authority's CEO on June 1, 2022. Staff continues to assemble the Administrative Record.
- Bakersfield to Palmdale Work through Notice of Determination/Record of Decision (NOD/ROD) has been completed. Continued meeting with key stakeholders, including the Center for Biological Diversity.
- Palmdale to Burbank The Draft EIR/EIS was released to the public on September 2, 2022. The public comment period was extended from 60 days to 90 days and closes on December 1, 2022.
- Burbank to Los Angeles Work through NOD/ROD has been completed. Project closeout activities are ongoing.
- Los Angeles to Anaheim The team continued integrating additional Burlington Northern Santa Fe Corporation (BNSF) deliverables pertaining to the Colton and Lenwood facilities into the assembled Administrative Draft EIR/EIS.

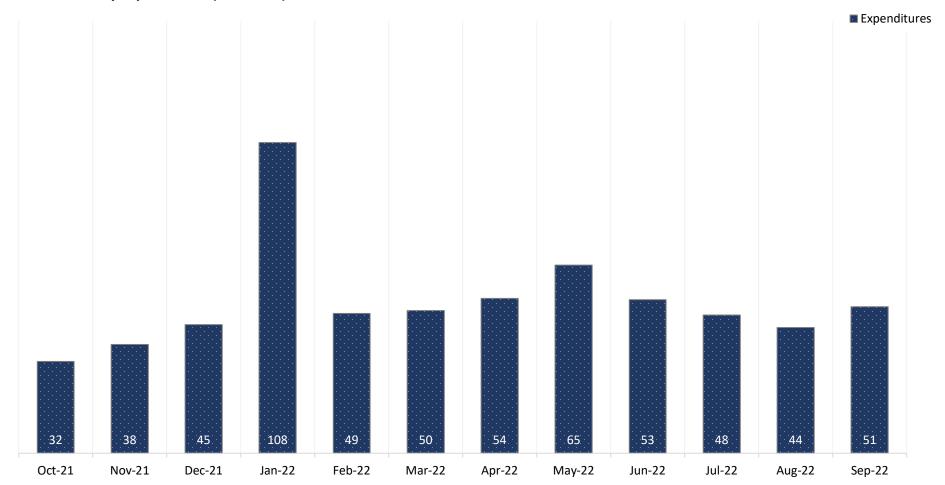
## Project Development (Post-Record of Decision) Schedule (Page 44)

- Merced Extension (Merced to Madera) In recognition of the successful \$25 Million Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant, the U.S. Department of Transportation (DOT), Federal Railroad Administration (FRA), issued a letter, dated September 13, 2022, granting approval to the Authority to pre-award the design services contract to Stantec, and proceed with the Configuration Footprint Project, without impacting the grant award. Execution of the \$41 Million contract to Stantec is underway.
- Bakersfield Extension Locally Generated Alternative (LGA) The California High-Speed Rail Authority executed an Agreement (HSR 22-01) with Howard, Needles, Tammen & Bergendoff (HNTB) on September 6, 2022 for \$44.9 Million, followed by the issuance of Notice to Proceed 01 (NTP-1) on September 8, 2022 to perform Configuration Footprint design services. Task Order 01 was executed on September 26, 2022 that defines the scope of work for the Project Management Plan, Annual Work Program, and other early actions for the first three months of work to be performed by HNTB and their subconsultants.



# **CP 1-4 – Design-Build Expenditures**

# **CP 1-4 – Monthly Expenditures (\$ Millions)**

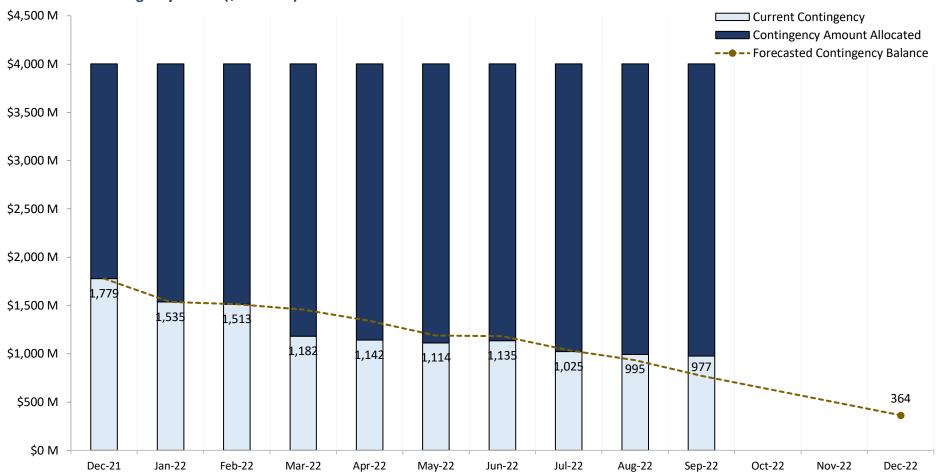


- 1. Expenditures in the chart above are specific to the Design-Builder production and based on the Capital Outlay and Expenditure Report.
- 2. September 2022 Expenditures totaled \$50.9M:
  - a. Construction Package 1 Expenditures totaled \$15.1M.
  - b. Construction Package 2-3 Expenditures totaled \$26.5M.
  - c. Construction Package 4 Expenditures totaled \$9.2M.



# **CP 1-4 – Risk Contingency**

## **CP 1-4 – Risk Contingency Status (\$ Millions)**



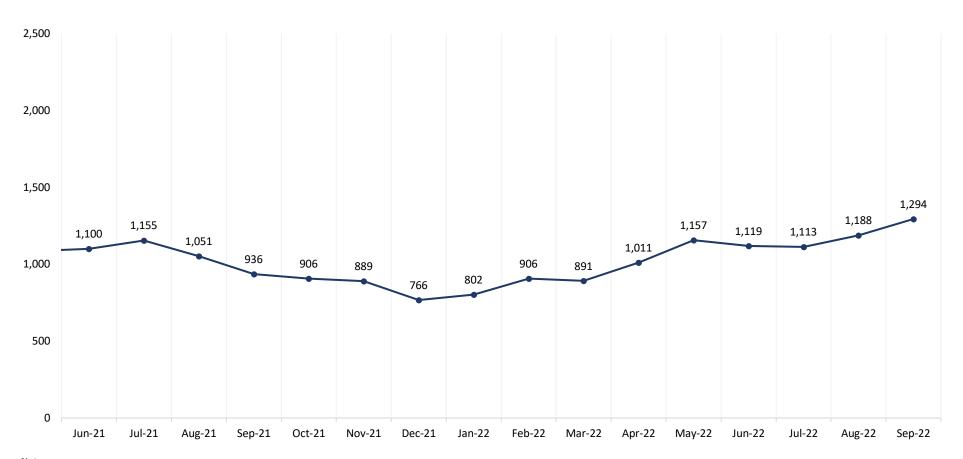
- 1. Program baseline is \$4,000.7M.
- 2. Contingency balance updated to reflect the Board's adoption of Resolution #HSR21-11 (Expenditure Authorization Increase).
- 3. Contingency Amount Allocated reflects all executed change orders and Business Oversight Committee (BOC) approved items for all CPs.
- 4. The Forecasted Contingency Balance drawdown curve is based only on agreed change orders expected to be executed within the three-month window. Due to change order negotiations, and dispute resolution, timing and value of Forecasted Contingency Balance is uncertain.



# **CP 1-4 – Construction Labor**

## **CP 1-4 – Monthly Construction Workforce Total – Actual (FTE)**

Total CP 1-4

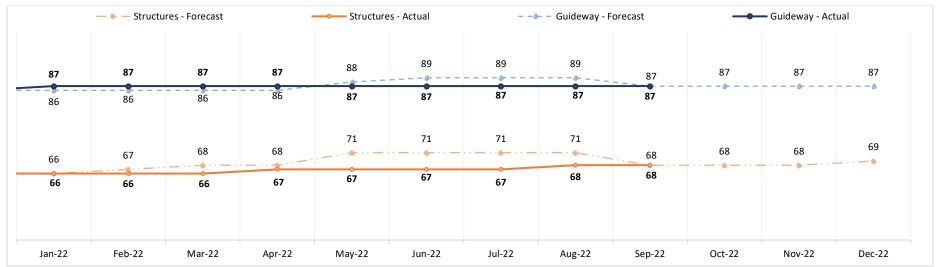


- 1. The construction labor numbers (full-time employees) are based on the weekly totals divided by the number of weeks within the working calendar month and represents the Average Daily Site Workers (by week).
- 2. September 2022, Average Daily Site Workers (by week) 1,294 workers. An increase of 106 workers from the previous period (from 1,188):
  - a. Construction Package 1 (Page 17) 245 workers. A decrease of 12 workers from the previous month (257).
  - b. Construction Package 2-3 (Page 26) 752 workers. An increase of 92 workers from the previous month (660).
  - c. Construction Package 4 (Page 37) 297 workers. An increase of 26 workers from the previous month (271).



# **CP 1-4 – Construction Progress**

### CP 1-4 – Construction Progress to Completion – Forecast vs. Actual



# Monthly Construction Status - In Progress vs. Completed

Construction	CF	'1	СР	2-3	CF	9 4	Ove	erall	Total
	In Progress	Completed							
Structures	10	16	17	14	8	3	35	33	68
Guideway	15	2	15	33	8.4	13.6	38.4	48.6	87

- 1. The chart above incorporates provisional forecast numbers as of September 2022 pending final approval of Revised Baseline Schedules (RBS) Revision 4 for Cp 1 and CP 2-3.
- 2. Construction Complete definition:
  - a. Structure Completion all concrete work is complete.
  - b. Guideway Completion earthworks complete with rough grading.
- Total Structures: 93
- 4. Structures 68 underway/construction complete compared to 93 structures total. (73%) No change from the previous period.
  - a. CP 1 26 structures underway/construction complete.
  - b. CP 2-3 31 structures underway/construction complete.
  - c. CP 4 11 structures underway/construction complete.
- 5. Total Guideway: approximately 119 miles
- 6. Guideway 87 miles underway/construction complete compared to 119 miles total. (73%) No change from the previous period.
  - a. CP 1 17 miles underway/construction complete.
  - b. CP 2-3 48 miles underway/construction complete.
  - c. CP 4 22 miles underway/construction complete. The actual miles for CP 4 are 21.5 miles but rounded to 22 miles for consistency in reporting.

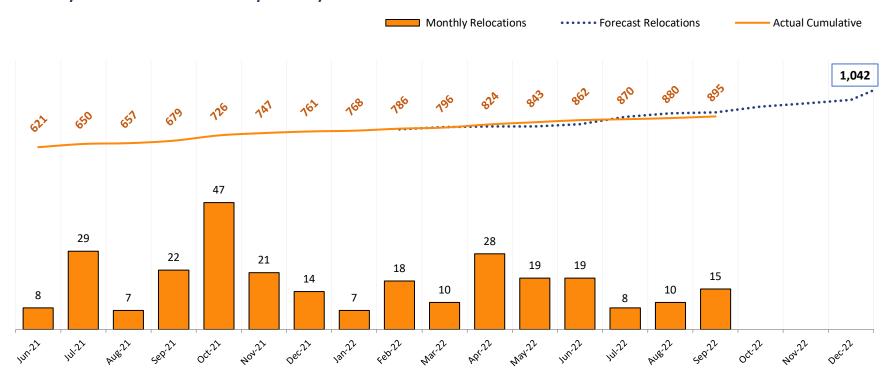


# **CP 1-4 – Utility Relocations**

# **CP 1-4 – Utility Relocation Summary**

Construction Package Total Relocations September 30, 2022		Total Utilities Relocated to Date September 30, 2022	Remaining Utility Relocations September 30, 2022	
CP 1	992	384	608	
CP 2-3	705	417	288	
CP 4	155	94	61	
Total	1,852	895	957	

## **CP 1-4 – Utility Relocation Status Summary-Monthly**



- 1. In Progress 393 (21%).
- 2. Approved to start 60 (3%).
- 3. Not Started 504 (27%).



# **CP 1-4 – Real Property/Right-of-Way (ROW)**

## CP 1-4 – Right-of-Way (ROW) Summary

Construction Package	Total Needed Parcels September 30, 2022	Total Parcels Delivered to Date September 30, 2022	Remaining Parcels to be Delivered September 30, 2022
CP 1	1,082	1,013	69
CP 2-3	988	920	68
CP 4	231	208	23
Total	2,301	2,141	160

### CP 1-4 - Parcel Delivery to Design-Builder (DB) Summary



- 1. This reflects the actual parcels delivered to the Design-Builder by month compared to the planned delivery schedule which identifies 90% and 95% milestone completion for CP 1-4. The 90% and 95% milestone completion does not include any additional parcels that may be added.
- 2. Delivery to Design Builder 90% milestone completion was achieved for CP1-4 in March 2022.
- 3. Total Needed Parcels decreased by 20 parcels. One parcel added to meet Third Party design requirements, 20 parcels associated with SR 46 and Gromer Transmission line removed, and one parcel removed due to design refinement reducing impacts to real property.

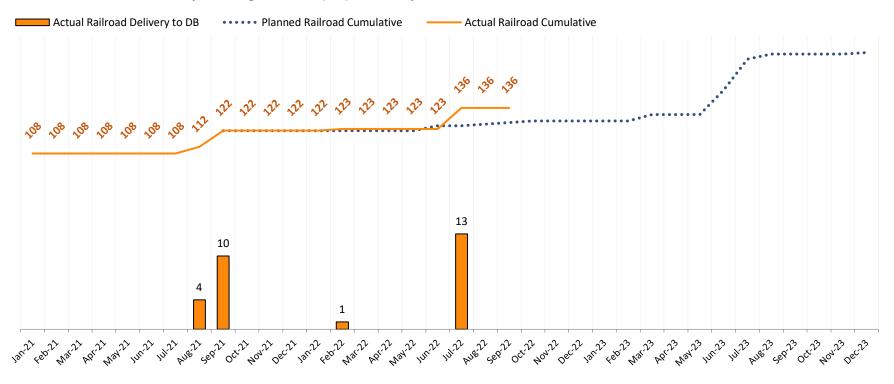


# CP 1-4 – Real Property/Right-of-Way (ROW) Railroad

## CP 1-4 - Right-of-Way (ROW) Railroad Summary

Construction Package	Total Needed Railroad Parcels September 30, 2022	Total Railroad Parcels Delivered to Date September 30, 2022	Remaining Railroad Parcels to be Delivered September 30, 2022
CP 1	83	57	26
CP 2-3	58	50	8
CP 4	29	29	0
Total	170	136	34

## CP 1-4 - Railroad Parcel Delivery to Design-Builder (DB) Summary



- 1. The Planned Cumulative line for Railroad Parcel Delivery reflects Revised Baseline Schedule (RBS) Revision 3.
- 2. Two Railroad parcel delivery dates are being reforecast, not impacting the critical path.

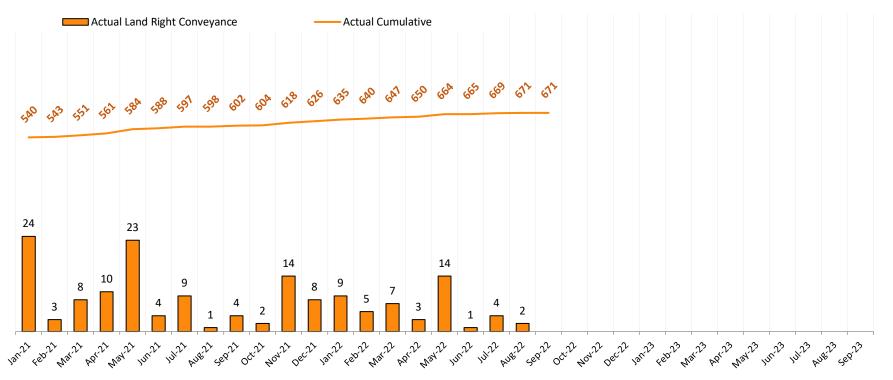


# CP 1-4 – Tier 1 Land Right Conveyances Required Prior to Construction (PG&E, SCE, FID, FMFCD)

## CP 1-4 - Tier 1 Land Right Conveyances Required Prior to Construction (PG&E, SCE, FID, FMFCD) Summary

Construction Package	Total Needed Land Right Conveyances September 30, 2022	Total Land Right Conveyances Approved <sup>(2)</sup> September 30, 2022	Remaining Land Right Conveyances to be Approved September 30, 2022
CP 1	393	344	49
CP 2-3	433	280	153
CP 4	88	47	41
Total	914	671	243

## CP 1-4 - Tier 1 Land Right Conveyances Required Prior to Construction (PG&E, SCE, FID, FMFCD) Summary



- 1. The Planned Cumulative line for Land Right Conveyances is being adjusted to reflect Revised Baseline Schedule (RBS) Revision 3 and will be reflected in a subsequent report.
- 2. The term "Approved" is defined as land right conveyances with Director of Real Property for signature, PG&E for signature, or recorded.



# **CONSTRUCTION PACKAGE 1 (CP 1) OVERVIEW**

## **CP 1 – Design-Build Contract Summary**<sup>(1)</sup>

#### Milestones

Milestone	Date
Request for Quote (RFQ) Date:	11/15/2011
Statement of Qualification (SOQ) Date:	12/19/2011
Request for Proposal (RFP) Date:	03/22/2012
Proposal:	01/18/2013
Bid Open Date:	04/13/2013
Award Date:	08/16/2013
Notice to Proceed (NTP) 1 Date:	10/15/2013
Notice to Proceed (NTP) 2 Date:	11/22/2013
Notice to Proceed (NTP) 3 Date:	07/11/2014
Original Completion Date:	03/31/2018
Current Forecast Contract Completion Date <sup>(2)</sup> :	02/28/2026
Current Forecast Construction Completion Date <sup>(2)</sup> :	12/31/2025

### **Contract Value**

Description	Amount
Fixed Bid Price:	\$969,988,000.00
Provisional Sums:	\$53,000,000.00
Original Contract Price:	\$1,022,988,000.00
Executed Change Orders:	\$1,905,545,256.76
Current Contract Amount <sup>(4)</sup> :	\$2,928,533,256.76
Approved Invoices to Date:	\$1,860,705,085.64
Remaining Contract Balance:	\$1,067,828,171.12

#### **Contract Time Status**

Description	Duration
Original Contract Days:	1,628
Extension of Time Awarded <sup>(3)</sup> :	2,832
Current Forecast Contract Days <sup>(3)</sup> :	4,460
Calendar Days Worked (thru 09/30/2022):	3,272

#### **Expended to Date**

Description	Percentage
Time <sup>(3)</sup> :	73.4%
Dollars <sup>(4)</sup> :	63.5%

### **Growth Percentage**

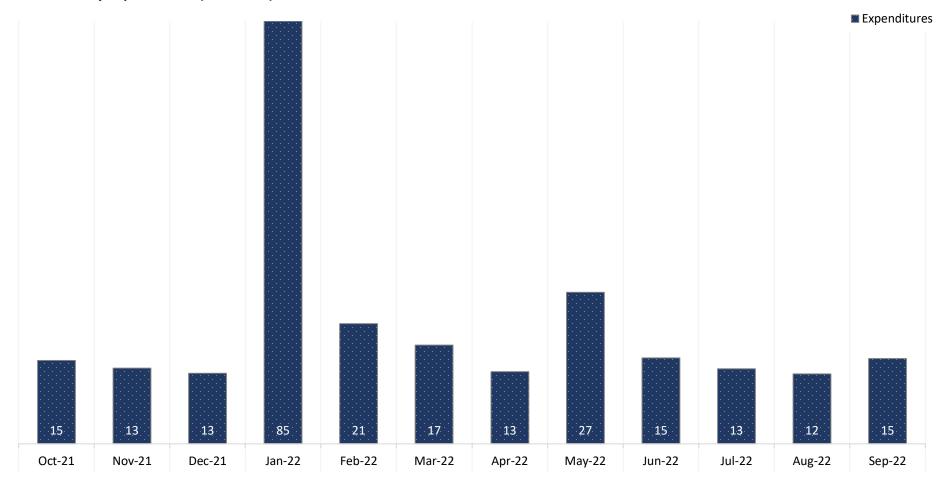
Description	Percentage
Time <sup>(3)</sup> :	174.0%
Dollars <sup>(4)</sup> :	186.3%

- 1. Information in this section is coming from data provided by the PCM Monthly Status Report.
- 2. Updated per the conditionally accepted Revised Baseline Schedule (RBS) Revision 4.
- 3. Contract Time Status (Extension of Time Awarded and Current Contract Days) Expended to Date (Time), and Growth Percentage (Time) calculation is based on the Current Forecast Construction Completion
- 4. Contract value will be updated to reflect RBS Revision 4 once the cost loaded schedule is received and agreed with the contractor.



# **CP 1 – Design-Build Expenditures**

# **CP 1 – Monthly Expenditures (\$ Millions)**



- 1. Expenditures in the chart above are specific to the Design-Builder production and based on the Capital Outlay and Expenditure Report.
- 2. Expenditures totaled \$15.1M.



# **CP 1 – Change Orders (CO)**

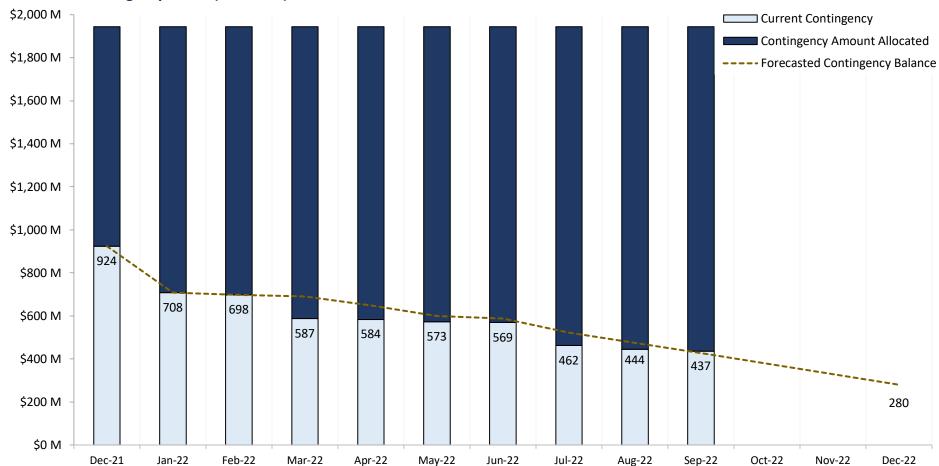
# **CP 1 – Change Order Status**

CO Number	Title	Change Status	Amount	Executed Date
00460	PCO 1005R0 - Ventura & H Street Water Reconnections - Design	Executed	\$47,617.00	09-16-22
00457	CPUC at Malaga Avenue - Construction	Executed	\$1,753,213.00	09-16-22
00454	00454 Damaged Street Light Pull Box at Belmont Avenue		\$1,893.08	09-17-22
00459	COF Waterline at California and Cherry - Design		\$52,913.00	09-17-22
00462	DL-196 UPRR Redesign Retaining Walls Herndon Avenue UPRR Bridge	Executed	\$38,926.00	09-17-22
00461	PCO 0962R1 - Existing Concrete Structure Discovered During Sinkhole Investigation at Olive Avenue	Executed	\$7,782.00	09-22-22
00467	Environmental Remediation at Parcel MF-10-1001 (Herndon)	Executed	\$145,000.00	09-24-22
00463	OCS Wall Mounts Fresno Trench North and South - Construction	Executed	\$2,696,581.00	09-25-22
00469			\$42,410.00	09-25-22
00458			\$42,885.00	09-24-22
00456	CPUC at Mono Street - Construction	Executed	\$1,986,500.00	09-25-22
00413.2	Caltrans SR-99 Realignment - Additional Design and Potholing Costs	Executed	\$169,569.00	09-28-22
00468	Dry Creek Canal FID Subtask 1.04	Executed	\$400,000.00	09-30-22
00465	Unknown Substructure Concrete Slab Discovered during Cornelia WTR Jacking Pit Excavation - Construction	Executed	\$2,278.44	09-28-22
00464	Compliance w/ Environmental & Engineering Requirements for Permanent Storm Water BMP (SWDR)	Executed	\$118,249.00	09-28-22
00392	DL-188 Crossing Applications within EAA Limits - Design	Executed	\$418,801.00	09-30-22
00453	00453 Caltrans SR-99 Realignment (Clinton to Ashlan) - Construction		\$101,500,000.00	09-30-22
	TOTAL		\$109,424,617.52	



# **CP 1 – Risk Contingency**

## CP 1 - Risk Contingency Status (\$ Millions)

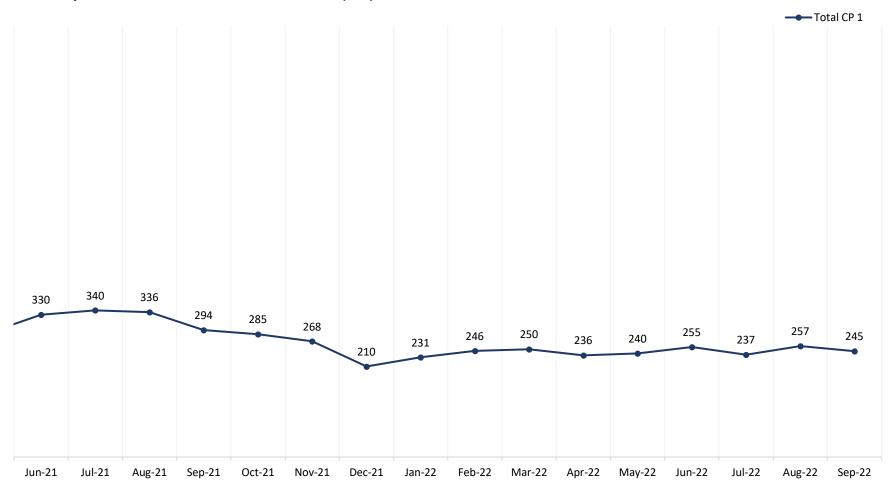


- 1. Program baseline is \$1,945M.
- 2. Contingency balance updated to reflect the Board's adoption of Resolution #HSR21-11 (Expenditure Authorization Increase).
- 3. Contingency Amount Allocated reflects executed change orders and Business Oversight Committee (BOC) approved items.
- 4. The Forecasted Contingency Balance drawdown curve is based only on agreed change orders expected to be executed within the three-month window. Due to change order negotiations, and dispute resolution, timing and value of Forecasted Contingency Balance is uncertain.



# **CP 1 – Monthly Construction Labor**

## **CP 1 – Monthly Construction Workforce Total – Actual (FTE)**

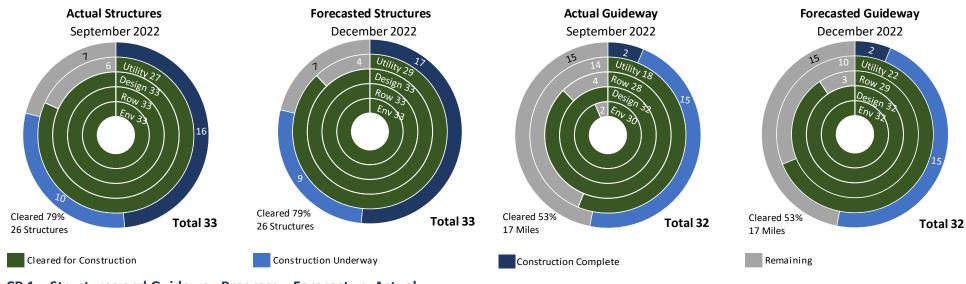


- 1. The construction labor numbers (full-time employees) are based on the weekly totals divided by the number of weeks within the working calendar month and represents the Average Daily Site Workers (by week).
- 2. A decrease of 12 workers from the previous month (257).

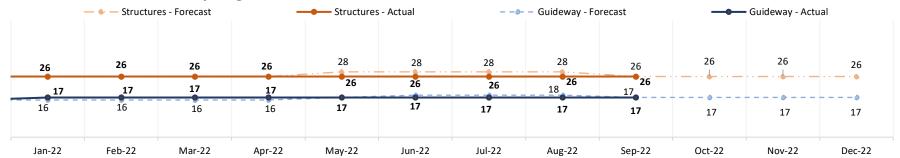


# **CP 1 – Construction Progress**

### **CP 1 – Construction Progress**



### CP 1 - Structures and Guideway Progress - Forecast vs. Actual



- 1. The circle charts above incorporate Revised Baseline Schedules (RBS) Revision 4 data as of September 2022, pending final approval.
- 2. The line chart above incorporates provisional forecast numbers as of September 2022, pending final approval of RBS Revision 4.
- 3. Construction Complete definition:
  - a. Structure Completion all concrete work is complete.
  - b. Guideway Completion earthworks complete with rough grading.
- Total Structures: 33:
  - a. 26 structures underway/construction complete.
- 5. Total Guideway: 32 miles:
  - a. 17 miles underway/construction complete.
- 6. The 40 design submissions included 33 Structure packages, 6 packages covering the 32 miles of guideway and one for Sweeper Package designs for viaducts and trenches at various locations (hence term "Sweeper") to include stairways, walkways, duct trenches and various other advance Track and Systems requirements. 33 Structure packages approved by the Authority, but only 30 approved by third parties. There are 32 miles of guideway approved by the Authority, but 2.5 miles (Caltrans section) has not been approved by Union Pacific Railroad (UPRR).

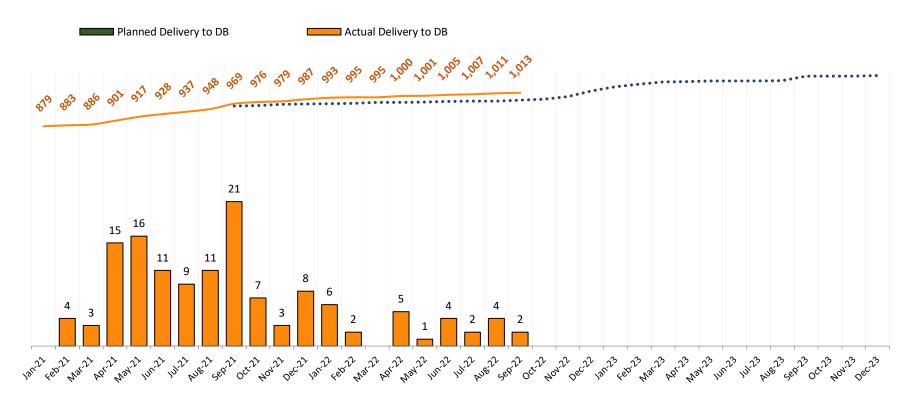


# CP 1— Real Property/Right-of-Way (ROW)

## CP 1 - Right-of-Way (ROW) Summary

Construction Package	Total Needed Parcels September 30, 2022	Total Parcels Delivered to Date September 30, 2022	Remaining Parcels to be Delivered September 30, 2022
CP 1	1,082	1,013	69

## CP 1 – Parcel Delivery to Design-Builder (DB) Summary



#### Notes:

1. This reflects the actual parcels delivered to the Design-Builder by month and projection based on the Revised Baseline Schedules (RBS) Revision 3.

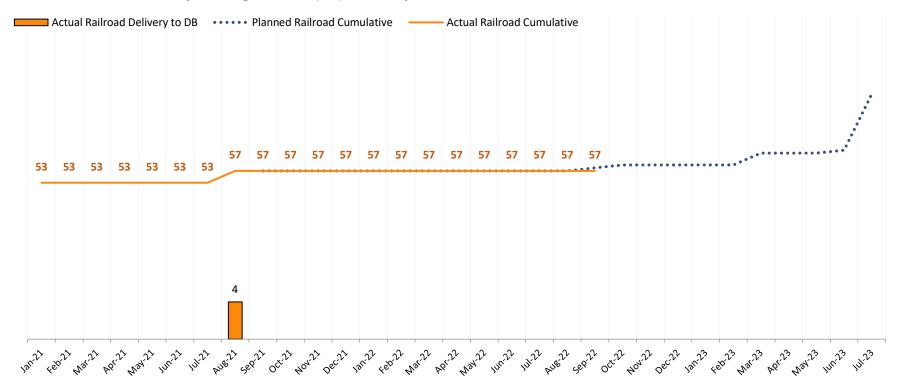


# **CP 1 – Real Property/Right-of-Way (ROW) Railroad**

## CP 1 - Right-of-Way (ROW) Railroad Summary

Construction Package	Total Needed Railroad Parcels September 30, 2022	Total Railroad Parcels Delivered to Date September 30, 2022	Remaining Railroad Parcels to be Delivered September 30, 2022
CP 1	83	57	26

## CP 1 - Railroad Parcel Delivery to Design-Builder (DB) Summary



- 1. The Planned Cumulative line for Railroad Parcel Delivery reflects Revised Baseline Schedule (RBS) Revision 3.
- 2. Two Railroad parcel delivery dates are being reforecast, not impacting the critical path.

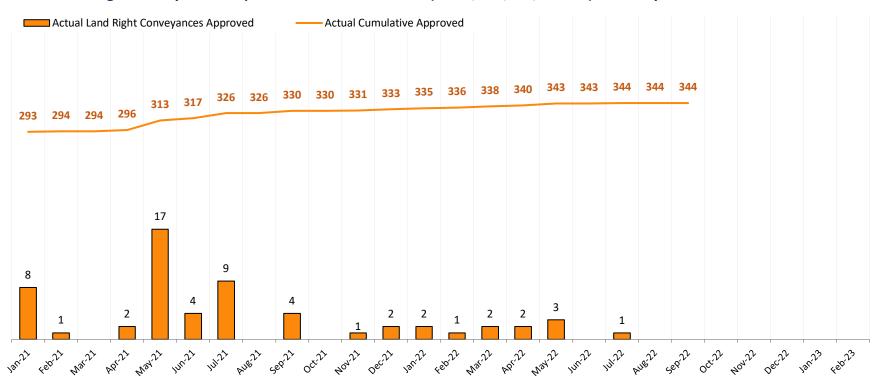


# **CP 1 – Tier 1 Land Right Conveyances Required Prior to Construction (PG&E, SCE, FID, FMFCD)**

## CP 1 – Tier 1 Land Right Conveyances Required Prior to Construction (PG&E, SCE, FID, FMFCD) Summary

Construction Package	Total Needed Land Right Conveyances September 30, 2022	Total Land Right Conveyances Approved <sup>(2)</sup> to Date September 30, 2022	Remaining Land Right Conveyances to be Approved September 30, 2022
CP 1	393	344	49

### CP 1 – Tier 1 Land Right Conveyances Required Prior to Construction (PG&E, SCE, FID, FMFCD) Summary



- 1. The Planned Cumulative line for Land Right Conveyances is being adjusted to reflect Revised Baseline Schedule (RBS) Revision 3 and will be reflected in a subsequent report.
- 2. The term "Approved" is defined as land right conveyances with Director of Real Property for signature, PG&E for signature, or recorded.



# **CONSTRUCTION PACKAGE 2-3 (CP 2-3) OVERVIEW**

## CP 2-3 - Design-Build Contract Summary<sup>(1)</sup>

### Milestones

Milestone	Date
Request for Quote (RFQ) Date:	10/09/2013
Statement of Qualification (SOQ) Date:	12/13/2013
Request for Proposal (RFP) Date:	04/03/2014
Proposal:	10/30/2014
Bid Open Date:	12/11/2014
Award Date:	06/10/2015
Late Notice to Proceed (LNTP) Date:	06/12/2015
Notice to Proceed (NTP) Date:	07/25/2015
Original Completion Date:	08/19/2019
Current Forecast Contract Completion Date <sup>(2)</sup> :	05/21/2026
Current Forecast Construction Completion Date <sup>(2)</sup> :	03/21/2026

### **Contract Value**

Description	Amount
Fixed Bid Price:	\$1,205,335,890.00
Provisional Sums:	\$160,000,000.00
Original Contract Price:	\$1,365,335,890.00
Executed Change Orders:	\$1,066,640,563.42
Current Contract Amount <sup>(4)</sup> :	\$2,431,976,453.42
Approved Invoices to Date:	\$1,692,875,616.10
Remaining Contract Balance:	\$739,100,837.32

### **Contract Time Status**

Description	Duration
Original Contract Days:	1,486
Extension of Time Awarded:	2,406
Current Forecast Contract Days:	3,892
Calendar Days Worked (thru 09/30/2022):	2,624

### **Expended to Date Percentage**

Description	Percentage
Time:	67.4%
Dollars:	69.6%

### **Growth Percentage**

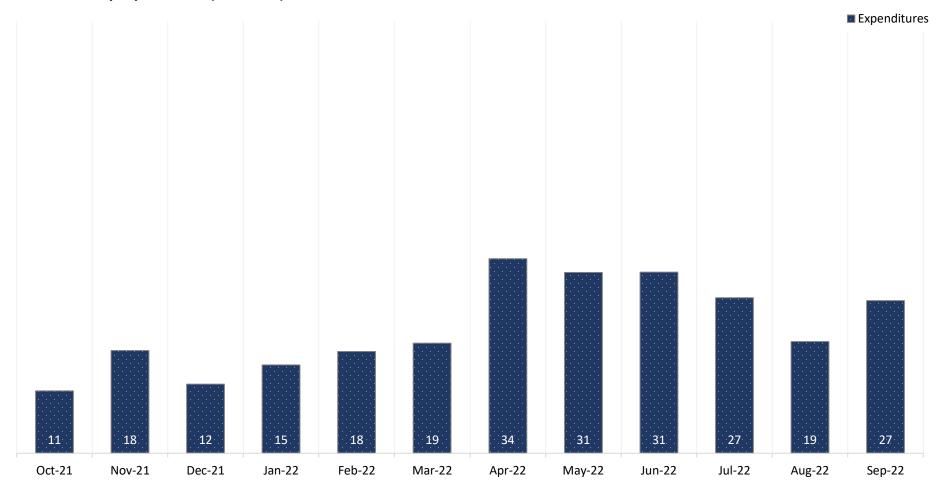
Description	Percentage		
Time:	161.9%		
Dollars:	78.1%		

- 1. Information in this section is coming from data provided by the PCM Monthly Status Report.
- 2. Updated per the conditionally accepted Revised Baseline Schedule (RBS) Revision 4.
- 3. Contract Time Status (Extension of Time Awarded and Current Contract Days) Expended to Date (Time), and Growth Percentage (Time) calculation is based on the Current Forecast Construction Completion
- 4. Contract value will be updated to reflect RBS Revision 4 once the cost loaded schedule is received and agreed with the contractor.



# **CP 2-3 – Design-Build Expenditures**

# **CP 2-3 – Monthly Expenditures (\$ Millions)**



- 1. Expenditures in the chart above are specific to the Design-Builder production and based on the Capital Outlay and Expenditure Report.
- 2. Expenditures totaled \$26.5M.



# **CP 2-3 – Change Orders (CO)**

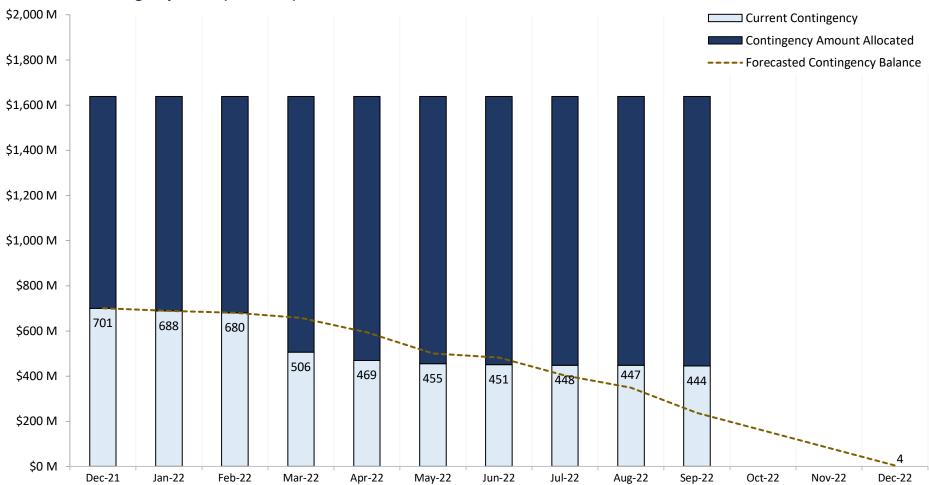
# **CP 2-3 – Change Order Status**

CO Number	mber Title		Amount	Executed Date
00317	PureGro Facility Site Corcoran-Clean Fill	Executed	\$189,259.00	09-27-22
00332	Wildlife Exclusion Fencing Ave 16 to Ave 8	Executed	\$189,584.00	09-27-22
00264.2	Dutch John Cut-Foundation Redesign Concurrent Load Test - DESIGN ONLY	Executed	\$22,825.00	09-27-22
00306	00306       Fresno County Additional Requirements Iowa Ditch Casings         00233.2       Civil Sweeper 9th/Cairo/Peach Avenue Bridges (Cable Trough)         00328.1       Lumen Fiber Optic – Lump Sum		\$1,023,615.00	09-27-22
00233.2			\$200,000.00	09-23-22
00328.1			\$898,199.00	09-21-22
00326	Private Irrigation Line Relocation- FB-16-0170-Design Only	Executed	\$10,214.00	09-21-22
00324	<ul> <li>Design Modifications – 9th and Cairo Avenues Structures</li> <li>Night Work at Kings River - Remobilization Costs - DN115</li> </ul>		\$198,695.00	09-21-22
00327			\$72,225.00	09-21-22
	TOTAL		\$2,804,616.00	



# **CP 2-3 – Risk Contingency**

## **CP 2-3 – Risk Contingency Status (\$ Millions)**

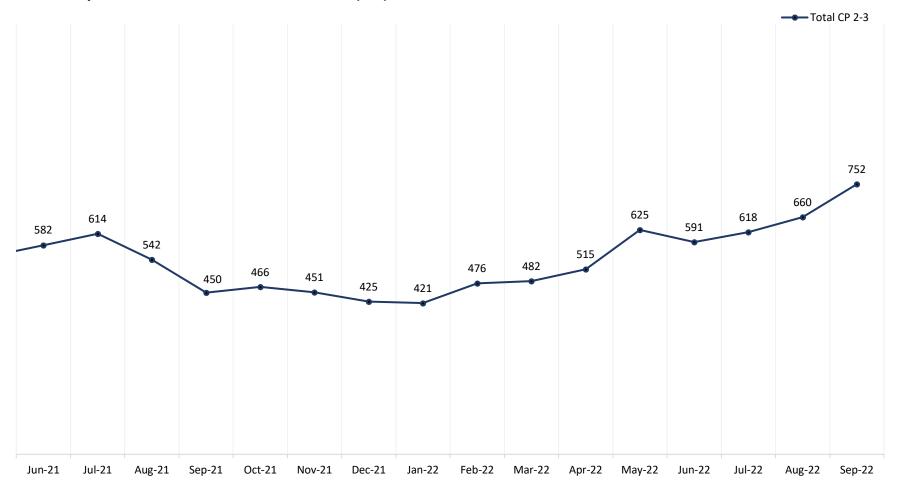


- 1. Program baseline is \$1,638M.
- 2. Contingency balance updated to reflect the Board's adoption of Resolution #HSR21-11 (Expenditure Authorization Increase).
- 3. Contingency Amount Allocated reflects executed change orders and Business Oversight Committee (BOC) approved items.
- 4. The Forecasted Contingency Balance drawdown curve is based only on agreed change orders expected to be executed within the three-month window. Due to change order negotiations, and dispute resolution, timing and value of Forecasted Contingency Balance is uncertain.



# **CP 2-3 – Monthly Construction Labor**

# **CP 2-3 – Monthly Construction Workforce Total – Actual (FTE)**

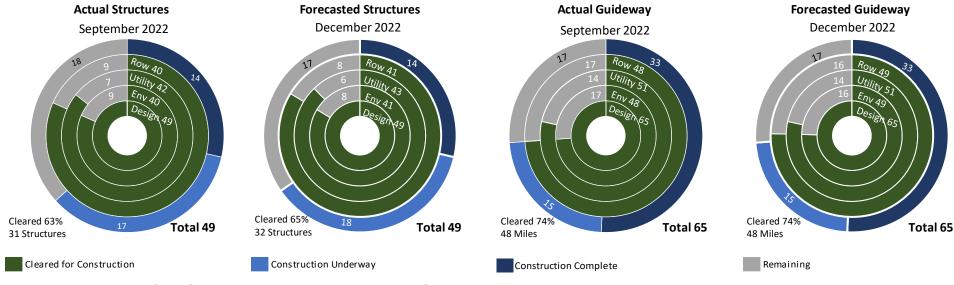


- 1. The construction labor numbers (full-time employees) are based on the weekly totals divided by the number of weeks within the working calendar month and represents the Average Daily Site Workers (by week).
- 2. An increase of 92 workers from the previous month (660).

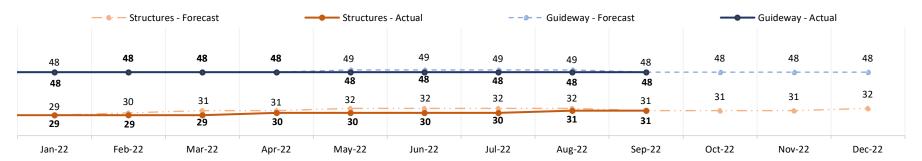


# **CP 2-3 – Construction Progress**

### **CP 2-3 – Construction Progress**



### CP 2-3 – Structures and Guideway Progress – Forecast vs. Actual



- L. The circle charts above incorporate Revised Baseline Schedules (RBS) Revision 4 data as of September 2022, pending final approval.
- 2. The line chart above incorporates provisional forecast numbers as of September 2022, pending final approval of RBS Revision 4.
- 3. Construction Complete definition:
  - a. Structure Completion all concrete work is complete.
  - b. Guideway Completion earthworks complete with rough grading.
- 4. Total Structures: 49:
  - a. 31 structures underway/construction complete.
- 5. Total Guideway: 65 miles:
  - a. 48 miles underway/construction complete.
- 5. The 109 design submissions included 50 Structures (split submission at Tulare Viaduct), 6 submissions covering the 65 miles of guideway, 41 for roadways and access roads with the corridor with the remaining 12 for IPB Packages, special foundation designs and Alpaugh Pond.

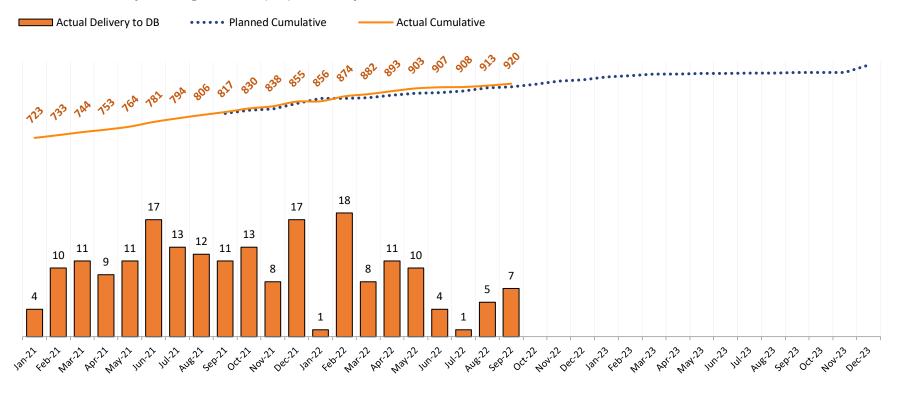


# **CP 2-3 – Real Property/Right-of-Way (ROW)**

## CP 2-3 - Right-of-Way (ROW) Summary

Construction Package	Total Needed Parcels September 30, 2022	Total Parcels Delivered to Date September 30, 2022	Remaining Parcels to be Delivered September 30, 2022
CP 2-3	988	920	68

### CP 2-3 – Parcel Delivery to Design-Builder (DB) Summary



- 1. This reflects the actual parcels delivered to the Design-Builder by month and projection based on the Revised Baseline Schedule (RBS) Revision 3.
- 5. Total Needed Parcels decreased by two parcels. Two parcels added to meet Third Party design requirements and four parcels removed due to design refinement reducing impacts to real property.

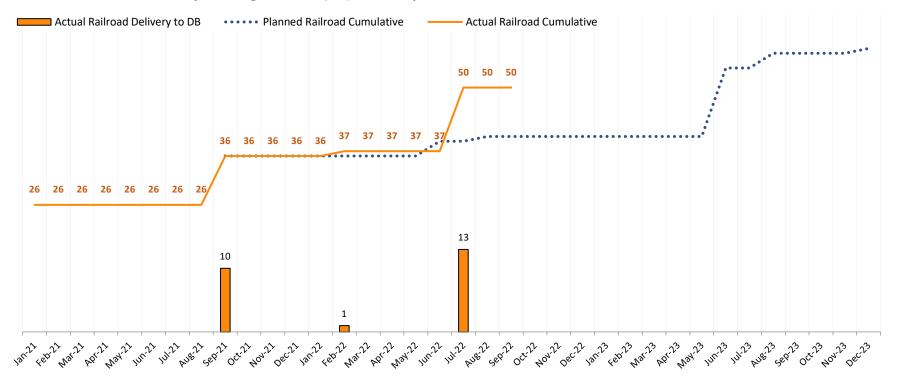


# CP 2-3 – Real Property/Right-of-Way (ROW) Railroad

## CP 2-3 - Right-of-Way (ROW) Railroad Summary

Construction Package	Total Needed Railroad Parcels September 30, 2022	Total Railroad Parcels Delivered to Date September 30, 2022	Remaining Railroad Parcels to be Delivered September 30, 2022
CP 2-3	58	50	8

### CP 2-3 - Railroad Parcel Delivery to Design-Builder (DB) Summary



### Notes:

1. The Planned Cumulative line for Railroad Parcel Delivery reflects Revised Baseline Schedule (RBS) Revision 3.

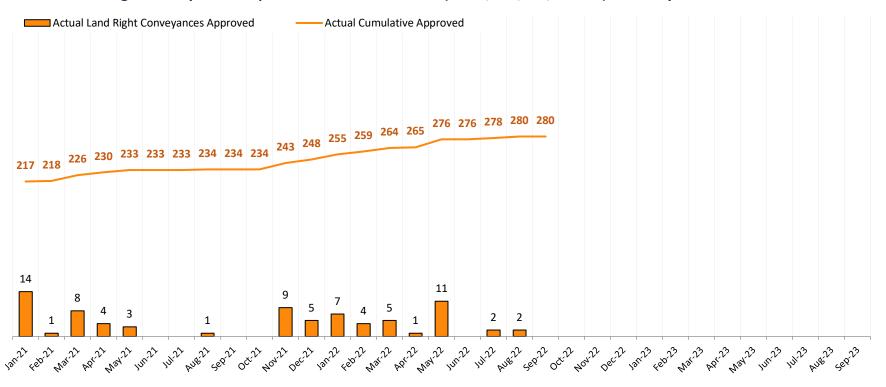


# CP 2-3 – Tier 1 Land Right Conveyances Required Prior to Construction (PG&E, SCE, FID, FMFCD)

## CP 2-3 - Tier 1 Land Right Conveyances Required Prior to Construction (PG&E, SCE, FID, FMFCD) Summary

Construction Package	Total Needed Land Right Conveyances September 30, 2022	Total Land Right Conveyances Approved <sup>(2)</sup> to Date September 30, 2022	Remaining Land Right Conveyances to be Approved September 30, 2022
CP 2-3	433	280	153

## CP 2-3 - Tier 1 Land Right Conveyances Required Prior to Construction (PG&E, SCE, FID, FMFCD) Summary



- 1. The Planned Cumulative line for Land Right Conveyances is being adjusted to reflect Revised Baseline Schedule (RBS) Revision 3 and will be reflected in a subsequent report.
- 2. The term "Approved" is defined as land right conveyances with Director of Real Property for signature, PG&E for signature, or recorded.



# **CONSTRUCTION PACKAGE 4 (CP 4) OVERVIEW**

## **CP 4 – Design-Build Contract Summary**<sup>(1)</sup>

### Milestones

Milestone	Date
Request for Quote (RFQ) Date:	11/20/2014
Statement of Qualification (SOQ) Date:	01/30/2015
Request for Proposal (RFP) Date:	05/27/2015
Proposal:	11/25/2015
Bid Open Date:	01/05/2016
Award Date:	02/29/2016
Late Notice to Proceed (LNTP) Date:	03/01/2016
Notice to Proceed (NTP) Date:	04/15/2016
Original Completion Date:	06/03/2019
Current Forecast Contract Completion Date <sup>(2)</sup> :	05/03/2023
Current Forecast Construction Completion Date <sup>(3)</sup> :	03/01/2023

### **Contract Value**

Description	Amount
Fixed Bid Price:	\$337,247,000.00
Provisional Sums:	\$107,000,000.00
Original Contract Price:	\$444,247,000.00
Executed Change Orders:	\$249,410,430.90
Current Contract Amount:	\$693,657,430.90
Approved Invoices to Date:	\$598,328,967.00
Remaining Contract Balance:	\$95,328,463.90

### **Current Time Status**

Description	Duration
Original Contract Days:	1,144
Extension of Time Awarded:	1,367
Current Forecast Contract Days:	2,511
Calendar Days Worked (thru 09/30/2022):	2,359

### **Expended to Date**

Description	Percentage
Time:	93.9%
Dollars:	86.3%

### **Growth Percentage**

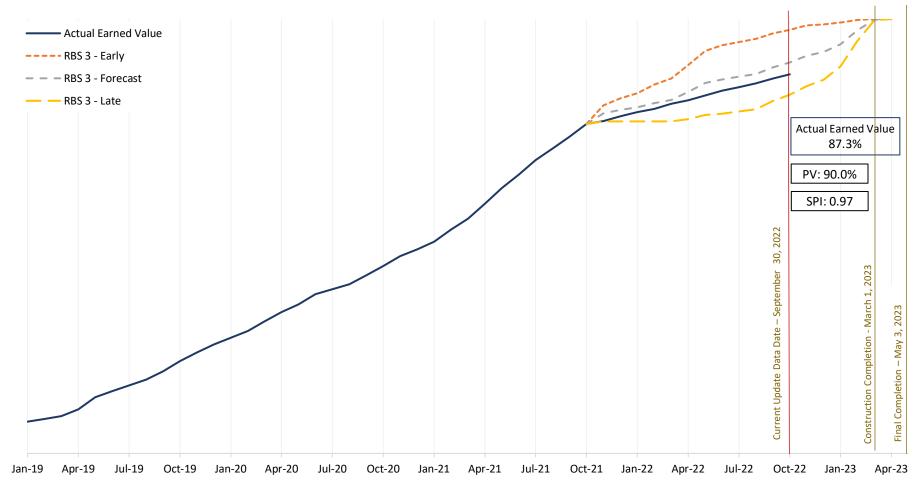
Description	Percentage				
Time:	119.5%				
Dollars:	56.1%				

- 1. Information in this section is coming from data provided by the PCM Monthly Status Report.
- 2. Updated to align with Current Forecast Contract Completion Date based on Expenditure Authorization.
- 3. Expenditure Authorization Current Forecast Construction Completion Date of March 1, 2023.
- I. Contract Time Status (Extension of Time Awarded and Current Forecast Contract Days) Expended to Date (Time), and Growth Percentage (Time) calculation is based on the Current Construction Completion Date.



# **CP 4 – Earned Value**

## **CP 4 – Earned Value Summary (%)**

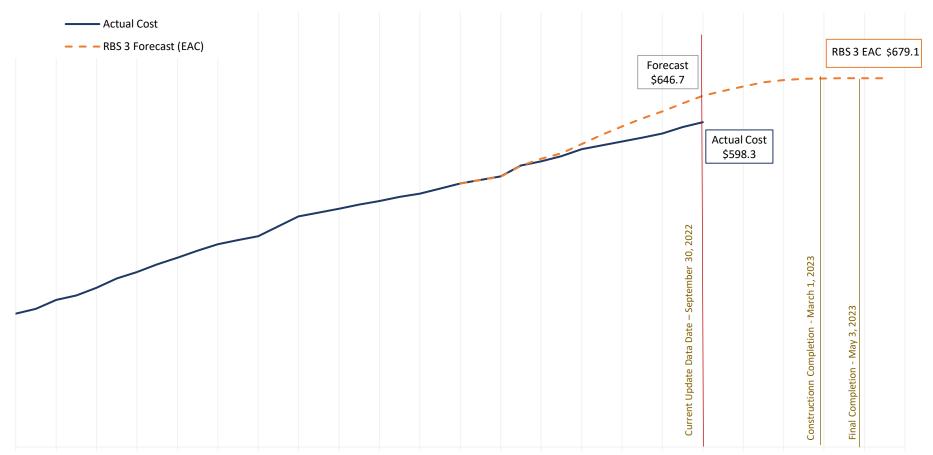


- 1. The plan graphs are based on RBS Revision 3, which has a data date of October 1, 2021 and a construction completion date of March 1, 2023. Actual graph is as of September 30, 2022.
- 2. Earned Value represents physical progress of site activities, which is based on project team verification of site progress measurements.
- 3. The early dates graph is optimistic and assumes activities will take place on the schedule early dates.
- 4. Average graph assumes non-critical path activities are taking place mid-way of early and late dates.
- 5. The late dates graph assumes activities will take place on the schedule late dates. If actuals fall below late graph, it indicates schedule slippage. To provide contingency, the Schedule Performance Index (SPI) is measured against the average graph.
- 5. Time contingency is not included in these forecasts. This is Authority owned contingency.
- 7. The schedule update received shows Substantial Completion on September 17, 2023; a mitigated schedule has been received bringing completion back to April 21, 2023; further mitigation measures are being implemented with the intent to bring the completion date back to March 1, 2023.



# CP 4 - Cost Trend

## **CP 4 – Cost Trend Summary (\$ Millions)**



Nov-19 Jan-20 Mar-20 May-20 Jul-20 Sep-20 Nov-20 Jan-21 Mar-21 May-21 Jul-21 Sep-21 Nov-21 Jan-22 Mar-22 May-22 Jul-22 Sep-22 Nov-22 Jan-23 Mar-23 May-23 Jul-23

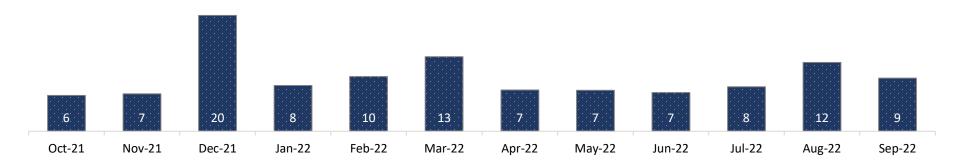
- 1. The graph provides a comparison of the project actual cost performance against the target RBS3 Estimate at Completion (EAC).
- 2. The target EAC forecast is based on the contract value and the estimated cost of expected change orders.
- The schedule update received shows Substantial Completion on September 17, 2023; a mitigated schedule has been received bringing completion back to April 21, 2023; further mitigation measures are being implemented with the intent to bring the completion date back to March 1, 2023.



# **CP 4 – Design-Build Expenditures**

**CP 4 – Monthly Expenditures (\$ Millions)** 

**■** Expenditures



- 1. Expenditures in the chart above are specific to the Design-Builder production and based on the Capital Outlay and Expenditure Report.
- 2. Expenditures totaled \$9.2M.



# **CP 4 – Change Orders (CO)**

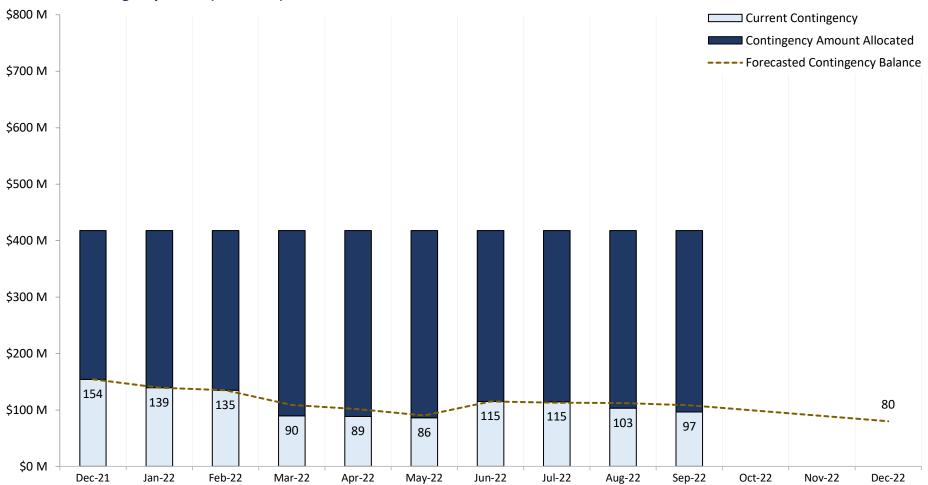
# **CP 4 – Change Order Status**

CO Number	Title	Change Status	Amount	Executed Date
157	Increase Cost due to Hazardous Materials Feb 2022	Executed	\$11,850.00	09-15-22
158	Frontier Conflict 2003 Additional Costs	Executed	\$371,178.75	09-28-22
159	Dedicated Wildlife Crossings Precast Boxes Storage and Freight	Executed	\$200,000.00	09-28-22
154	Intrusion Protection Barrier at the Amtrak Station	Executed	\$1,400,000.00	09-15-22
150	Costs resulting from Kern County's Additional Requirements	Executed	\$3,800,000.00	09-08-22
	TOTAL		\$5,783,028.75	



# **CP 4 – Risk Contingency**

## CP 4 - Risk Contingency Status (\$ Millions)

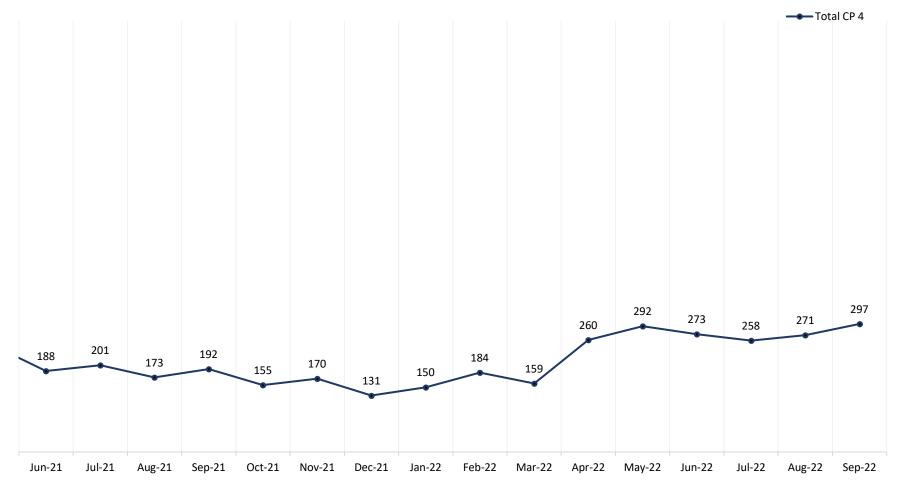


- 1. Program baseline is \$418M.
- 2. Contingency balance updated to reflect the Board's adoption of Resolution #HSR21-11 (Expenditure Authorization Increase).
- 3. Contingency Amount Allocated reflects executed change orders and Business Oversight Committee (BOC) approved items.
- 4. The Forecasted Contingency Balance drawdown curve is based only on agreed change orders expected to be executed within the three-month window. Due to change order negotiations, and dispute resolution, timing and value of Forecasted Contingency Balance is uncertain.
- 5. June 2022 increases due to \$31M Business Oversight Committee approved transfer of Utility Provisional Sum from contract to contingency.



# **CP 4 – Monthly Construction Labor**

# **CP 4 – Monthly Construction Workforce Total – Actual (FTE)**

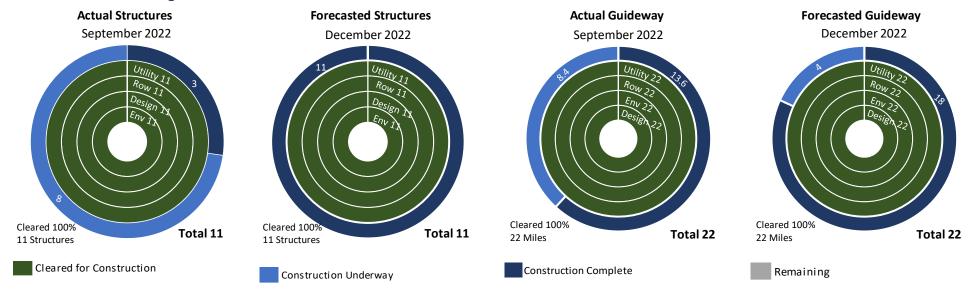


- 1. The construction labor numbers (full-time employees) are based on the weekly totals divided by the number of weeks within the working calendar month and represents the Average Daily Site Workers (by week).
- 2. An increase of 26 workers from the previous month (271).

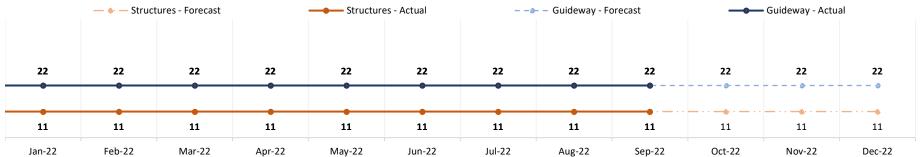


# **CP 4 – Construction Progress**

### **CP 4 – Construction Progress**



# CP 4 – Structures and Guideway Progress – Forecast vs. Actual



- 1. The circle charts above incorporate Revised Baseline Schedules (RBS3) approved schedule.
- 2. Construction Complete definition:
  - a. Structure Completion all concrete work is complete.
  - b. Guideway Completion earthworks complete with rough grading.
- 3. Total Structures: 11:
  - . 11 structures underway/construction complete.
- 4. Total Guideway: 22 miles. The actual miles for CP 4 are 21.5 miles but rounded to 22 miles for consistency in reporting:
  - 22 miles underway/construction complete.

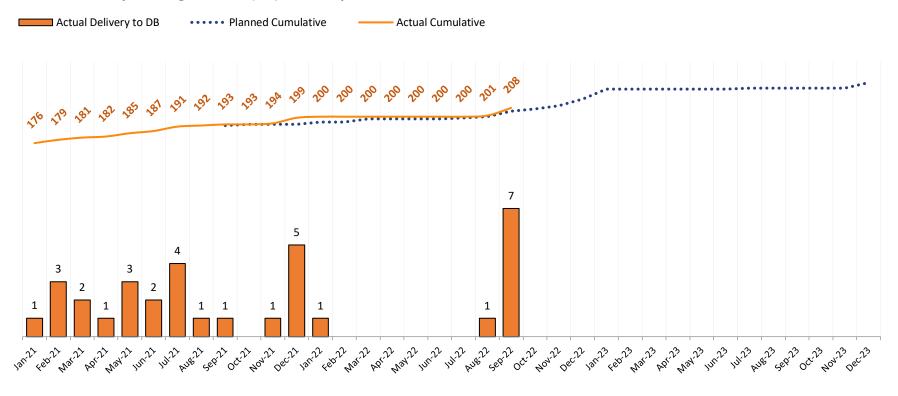


# CP 4 – Real Property/Right-of-Way (ROW)

# CP 4 - Right-of-Way (ROW) Summary

Construction Package	Total Needed Parcels September 30, 2022	Total Parcels Delivered to Date September 30, 2022	Remaining Parcels to be Delivered September 30, 2022
CP 4	231	208	23

## CP 4 - Parcel Delivery to Design-Builder (DB) Summary



- 1. This reflects the actual parcels delivered to the Design-Builder by month compared to the Revised Baseline Schedule (RBS) Revision 3.
- 2. Needed Parcels decreased by 20 parcels associated with SR 46 and Gromer Transmission line removed.

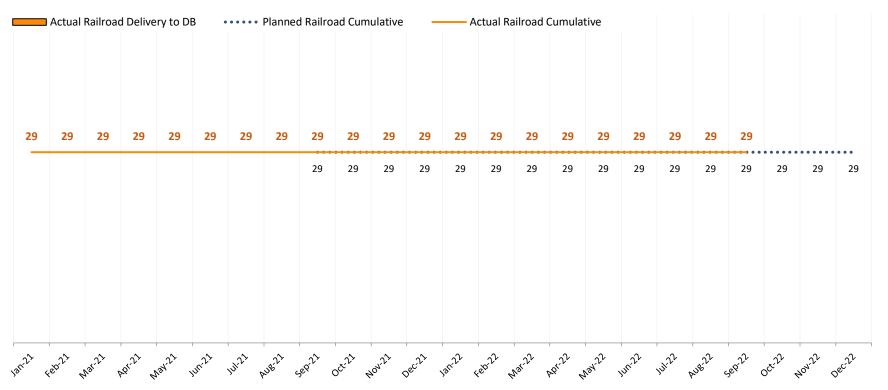


# CP 4 – Real Property/Right-of-Way (ROW) Railroad

## CP 4 – Right-of-Way (ROW) Railroad Summary

Construction Package	Total Needed Railroad Parcels September 30, 2022	Total Railroad Parcels Delivered to Date September 30, 2022	Remaining Railroad Parcels to be Delivered September 30, 2022
CP 4	29	29	0

## CP 4 - Railroad Parcel Delivery to Design-Builder (DB) Summary



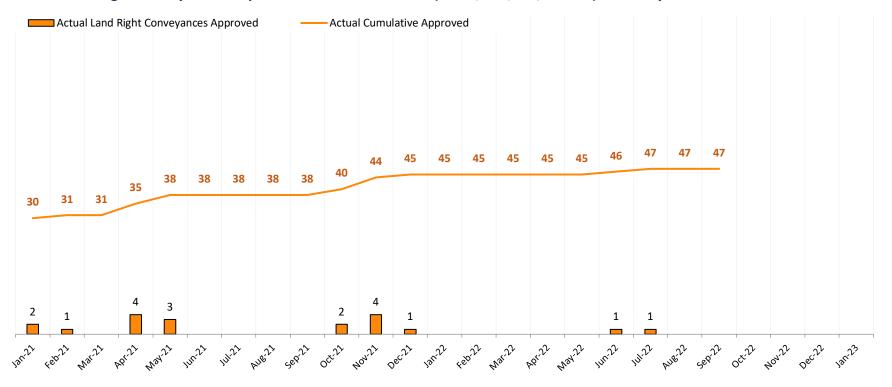


# **CP 4 – Tier 1 Land Right Conveyances Required Prior to Construction (PG&E, SCE, FID, FMFCD)**

# CP 4 – Tier 1 Land Right Conveyances Required Prior to Construction (PG&E, SCE, FID, FMFCD) Summary

Construction Package	Total Needed Land Right Conveyances September 30, 2022	Total Land Right Conveyances Approved <sup>(2)</sup> to Date September 30, 2022	Remaining Land Right Conveyances to be Approved September 30, 2022
CP 4	88	47	41

### CP 4 – Tier 1 Land Right Conveyances Required Prior to Construction (PG&E, SCE, FID, FMFCD) Summary



- 1. The Planned Cumulative line for Land Right Conveyances is being adjusted to reflect Revised Baseline Schedule (RBS) Revision 3 and will be reflected in a subsequent report.
- 2. The term "Approved" is defined as land right conveyances with Director of Real Property for signature, PG&E for signature, or recorded.



# **Project Development Schedule (Environmental Clearance) – Record of Decision (ROD)**

**Project Development Schedule (to ROD)** 

	Segment	Progress	Complete P Need Sta		Complete A		Board Cond Preliminary Alt. Draf	Preferred	Publish Dr	aft EIR/EIS	Publish Fir Obtair	nal EIS and n ROD	Date EIR/I Comp	
Number	Section	Due Dates	Last Month	Current	Last Month	Current	Last Month	Current	Last Month	Current	Last Month	Current	Last Month	Current
Document Complete	Merced to Fresno	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%
Document Complete	Fresno to Bakersfield	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Compl0ete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%
Document Complete	CV Electrical Interconnections	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%
Document Complete	Locally Generated Alternative (F-B)	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%
Document Complete	Central Valley Wye (M-F)	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%
Document Complete	Bakersfield to Palmdale	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%
Document Complete	Burbank to Los Angeles	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%
Document Complete	San Jose to Merced	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%
1	San Francisco to San Jose <sup>3</sup>	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Aug-22 Aug-22 99%	Aug-22 Aug-22 99%	Aug-22	Aug-22
2	Los Angeles to Anaheim	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	May-23 May 23 86%	May-23 May-23 87%	Jun-24 Jun-24 0%	Jun-24 Jun-24 <sup>1</sup> 0%	Jun-24	Jun-24
3	Palmdale to Burbank	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Aug-22 Sep-22 99%	Aug-22 Sep-22 <sup>2</sup> 100%	Sep-23 Oct-23 0%	Sep-23 Nov-23 0%	Oct-23	Nov-23
4	Heavy Maintenance Facility (HMF)	Plan Forecast % Complete	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Complete Complete 100%	Apr-16 TBD 0%	Apr-16 TBD 0%	Sep-16 TBD 0%	Sep-16 TBD 0%	Feb-21 TBD 0%	Feb-21 TBD 0%	TBD	TBD

- 1. The Los Angeles to Anaheim project segment completion dates were extended in February 2022 due to additional discussions with various stakeholders such as BNSF, the City of Colton, and the Lenwood community.
- 2. The Palmdale to Burbank Draft EIR/EIS was released to the public on September 2, 2022. On September 20, 2022, the Authority extended the public comment period from 60 days to 90 days.
- 3. The High-Speed Rail Authority Board certified the San Francisco to San Jose Final EIR/EIS at the August 2022 Board Meeting. Update: The ROD was signed by the Authority's Chief Executive Officer (CEO) on October 14, 2022.



# **Project Development – Key Actions**

# **Project Development (Environmental Clearance) – Key Actions Summary**

Project Section	Key Actions
San Francisco to San Jose	Authority Board certified the Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) on August 18, 2022. <b>Update</b> : The High-Speed Rail Authority's Chief Executive Officer (CEO) signed the National Environmental Policy Act (NEPA) Record of Decision (ROD) on October 14, 2022.
San Jose to Merced	The Final ROD was signed by the Authority's CEO on June 1, 2022.  Administrative Record being assembled and organized. Third batch of materials was submitted on August 31, 2022.
Central Valley Wye	Conducted monthly progress meeting with County of Madera on Fairmead mitigation projects.  Environmental Clearance activities complete. Transition to Merced Extension (Merced to Madera).
Locally Generated Alternative	Environmental Clearance activities complete. Transition to Bakersfield Extension (LGA).
Bakersfield to Palmdale	Work through Notice of Determination/Record of Decision (NOD/ROD) has been completed. The Authority has continued to meet with key stakeholders (e.g., Center for Biological Diversity, City of Palmdale) as necessary.
Palmdale to Burbank	The Draft EIR/EIS was released to the public on September 2, 2022. The public comment period was extended from 60 days to 90 days and closes on December 1, 2022.
Burbank to Los Angeles	Work through NOD/ROD has been completed. Project closeout activities are ongoing.
Los Angeles to Anaheim	Continued integrating additional revised environmental deliverables from Burlington Northern Santa Fe Corporation (BNSF) pertaining to the Colton and Lenwood project components into the assembled Administrative Draft EIR/EIS.



# Project Development (Post-ROD) – Key Actions Summary

Project Section	Key Actions
Merced Extension (Merced to Madera)	In recognition of the successful \$25 Million Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant, the U.S. Department of Transportation (DOT), Federal Railroad Administration (FRA), issued a letter, dated September 13, 2022, granting approval to the Authority to pre-award the design services contract to Stantec, and proceed with the Configuration Footprint Project, without impacting the grant award. Execution of the \$41 Million contract to Stantec is underway.
Bakersfield Extension (Locally Generated Alternative (LGA))	The Authority executed an Agreement (HSR 22-01) with Howard, Needles, Tammen & Bergendoff (HNTB) on September 6, 2022 for \$44.9 Million, followed by the issuance of Notice to Proceed – 01 (NTP-1) on September 8, 2022 to perform Configuration Footprint design services. Task Order – 01 was executed on September 26, 2022 that defines the scope of work for the Project Management Plan, Annual Work Program, and other early actions for the first three months of work to be performed by HNTB and their subconsultants.